

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

Claim 1 (Canceled).

Claim 2 (Currently Amended): The A microwave phase shifter comprising:
a circuit board on which a transmission line configured to transmit a microwave
signal is disposed on one surface of a semi-insulating layer;
a first conductive layer disposed on the other surface;
a second conductive layer disposed on a forming surface of the transmission line with
an end portion set in close proximity to one side of the transmission line; and an active layer
disposed under a forming portion of the transmission line in the semi-insulating layer; and
a bias circuit configured to apply a bias voltage to the transmission line;
according to claim 1, wherein the bias circuit grounds the first and second conductive
layers and applies a bias voltage of negative polarity to the transmission line.

Claim 3 (Currently Amended): The microwave phase shifter according to claim 2
claim 1, wherein the bias circuit variably controls the bias voltage in a continuous or stepwise
fashion.

Claim 4-7 (Cancelled).

Claim 8 (Currently Amended): A the power amplifier comprising:
a distributor configured to distribute a microwave signal to a plurality of transmission
paths;
a plurality of amplifiers respectively provided in the plurality of transmission paths
and configured to power-amplify the transmission signals;

a phase adjusting circuit configured to adjust signal propagation phases between the plurality of transmission paths by using at least one of the plurality of transmission paths as a reference path, providing respective phase shifters in all the other plurality of transmission paths and adjusting phase shift amounts of the respective phase shifters; and

a synthesizer configured to synthesize the signals power-amplified by the plurality of amplifiers at ends of the plurality of transmission paths;

wherein each of the phase shifter includes a circuit board on which a respective transmission line configured to transmit a microwave signal is disposed on one surface of a corresponding semi-insulating layer, a respective first conductive layer is disposed on another surface, a second conductive layer is disposed on a forming surface of the corresponding transmission line with an end portion set in close proximity to one side of the corresponding transmission line, and an respective active layer is disposed under a forming portion of the corresponding transmission line in the corresponding semi-insulating layer, and the respective bias circuit applies a respective bias voltage to the respective transmission line;

wherein the phase adjusting circuit supplies a bias voltage corresponding to the phase shift amount to the corresponding phase shifter; and

~~according to claim 7, wherein the respective bias circuit grounds the first and second conductive layers and applies the respective bias voltage of negative polarity to the corresponding transmission line.~~

Claim 9 (Currently Amended): The power amplifier according to claim 8 ~~claim 7~~, wherein the respective bias voltage is variably controlled in a continuous or stepwise fashion.

Claim 10 (Currently Amended): The power amplifier according to claim 8 ~~claim 7~~, wherein the respective phase shifter is arranged on the output side of the corresponding power amplifier.

Claim 11 (Currently Amended): The power amplifier according to claim 8 ~~claim 7~~,
wherein the phase adjusting circuit includes
a monitor configured to monitor which monitors an output signal of the synthesizer
and a control device configured to control which controls a voltage value of the respective
bias voltage based on the monitoring result of the monitor.

Claim 12-18 (Cancelled).